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PLAIN

DIRECTIONS

In Regard to the

SMALL-POX.

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SMALL-POX.

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ANTIQUARIAN SOCIETY

THE PREFACE.

NO Diſtemper incident to Mankind requires more Skill and Diligence to manage than a *bad* Sort of Small-Pox, and yet, by ſome ſtrange Fatality, or Ignorance, or Covetouſneſs, it is too commonly ſubmitted to the Conduct of thoſe who are very unequal to the Taſk; the *experienc'd* Phyſician being but ſeldom call'd in at the very Beginning of the Diſeaſe, when the greateſt Good is to be done.

The following Obſervations, therefore, are publiſhed merely to aſſiſt and direct ſuch who have not had Time or Opportunity to purſue a regular Courſe of Study; and it is moſt ſincerely wiſhed,

that they may be a Means of preventing ſuch Miſchiefs as are too frequently met with from unſkilful Directions.

It has always been my Cuſtom to commit to Writing whatever practical Obſervations I made, either in the ſick Chamber, or in my Study; and by reducing them under general Heads, they have been greatly aſſiſting to me in the Courſe of my Practice. I well remember when ſuch plain Rules, as are contained in the following Sheets, would have greatly relieved the Diſtreſſes I ſuffered in the ſick Chamber, at my firſt Beginning to practiſe; and I believe every humane Perſon feels the ſame, 'till Experience has made him more perfect in his Art, and he begins to have ſome eſtabliſhed Maxims to go by.

If therefore I am ſo happy as to give any one better Directions than he knew before, I hope I ſhall not be accounted a Plagiary in ſo doing, becauſe I profeſs to have collected from the beſt Authors

whatever

whatever ſeemed moſt uſeful and neceſſary. I have not the Ambition to think I have advanced any Thing that is not already well known to the *Learned*; for I declare, once more, that my chief View is to aſſiſt the unexperienced; and if this Manner of doing it ſhall be thought a right Way, I may hereafter purſue the ſame Scheme in reſpect to ſome other Diſeaſes.

Wincheſter, Jan. 2, 1758.

PLAIN

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In Regard to the
SMALL-POX.

THERE is no greater Truth than that the *good* or *bad* Succeſs in curing the Small-Pox, depends chiefly on a *right* or *wrong* Method of treating the Sick in its firſt Stadia.

It is much to be lamented, therefore, that the beſt Advice is not always called in at the very Beginning of this Diſtemper; becauſe, if it were duly attended to, we ſhould find from plain and obvious Facts, that the morbid venomous Matter of this Diſeaſe may be leſſened or increaſed, in Quantity and bad Quality, by a right or wrong Management at the firſt.

It is certainly the Duty of every Phyſician to purſue ſuch a Courſe as is moſt likely to hinder the too haſty Aſſimilation of the variolous Matter, and thereby abate the Number

of Puſtules. I would not be underſtood by this, as if I meant to ſuperſede the permanent Laws of Nature, and utterly aboliſh the very Seeds of this Diſeaſe, after the Blood is infected with them. No; this I fear is beyond our Power, notwithſtanding ſo great a Man as Profeſſor *Boerhaave* thought it poſſible; and aſſerts, that he had often known the Small-Pox cured without Suppuration, by being treated as an inflammatory Fever: But thus far I argue, that if the Quantity and bad Quality of variolous Matter in the Blood is to be increaſed, as undoubtedly it is, by the Uſe of *fiery Cordials* and a *bad Regimen*, it ſeems very rational to think that *proper Directions* may abate the Number of Puſtules, and render them more benign.

In order to illuſtrate this as clearly as I can, I ſhall conſider what has been the conſtant Practice of the beſt Phyſicians in every Stage of this Diſeaſe. Now in this Diſtemper there are two Seaſons wherein the Blood and Lymph are conſiderably rarefied and expanded. The *firſt* is, when the morbid infectious Miaſmata of the Small-Pox are preying upon, and aſſimilating the Juices into their own Nature; that is to ſay, in the Fever before the Eruption, at which Time there is a conſiderable Dilatation of the ſanguinary and lymphatic Veſſels, which uſually produces the Head-Ach, Drowſineſs, Pains in the Region of the Reins, Delirium, Reſtleſſneſs, and other Symptoms preceding the Eruption. The *ſecond* is at the Time of Declination, when either no more variolous Matter can be caſt out to the Skin, or that ſome Part of what has been already caſt out, is reabſorbed into the Blood, and generates the ſecondary Fever; by cauſing a freſh Ebullition in the Blood and Lymph,

and

and by acting as a Stimulus on the whole nervous Syſtem. In the confluent Small-Pox, indeed, it ſometimes happens that the firſt Fever runs through all the Stages, and ſeems, at laſt, to be overcome as it were by the ſecond Fever; but even here, the two greateſt Struggles are at the Beginning and Ending.

In both theſe States, it is eaſy to perceive how we ought to fear the Dilatation of the Veſſels, and the Eruption of the Blood from its proper Channels, ſo as to produce Inflammations, Hemorrhages, *&c.* For the Small-Pox is an invenomed Fever of the inflammatory Kind, and therefore too great an Ebullition of the Blood is to be checked from the Beginning; whereby the Separation of the putrid, variolous Matter, at its Expulſion outwards to the Skin, will be more moderate. Experience hath taught us, that it is very happy when the Eruption is ſlow and gradual; but when it is too haſty, when the Puſtules riſe all at once, from the too violent Motion of the Fluids, and the too great Plenty of the Humors getting looſe as it were in an Inſtant, it always threatens ſome of the Viſcera with Inflammation, or other bad Symptoms.

How unreaſonable therefore, and deſtructive is the common Method of many People, who gorge their Patients with *cordial Powders*, *Boluſſes*, and *hot fiery Juleps*, as ſoon as they have any certain Signs of the Small-Pox? Let us then carefully conſider what is beſt to be done during the Time of the Fever preceding the Eruption.

The infectious *Miaſmata* having diſturbed the due Mixture of the Blood, and acting as a Stimulus on the Solids, this Struggle of Nature, or ſome Exceſs of Velocity in the

Motion of the Fluids is raiſed, in order to caſt out the morbid Matter upon the external and internal Parts of the Body; and therefore the *firſt* Fever is ſo far beneficial, whilſt it keeps within due Bounds, by preparing and attenuating the variolous Matter fit for Expulſion.

Hence it follows, that if the Fever be no greater than what is requiſite for the Expulſion of the Puſtules, the Work is to be left to Nature; and he would be thought either very ignorant in his Art, or very officious, who ſhould try to haſten the Eruption of the Puſtules by heating Medicines, or to retard it by Bleeding, *&c.* beyond its proper Time.

But if the Effervescence of the Blood runs high, if there be great Reſtleſſneſs, Pains, Difficulty of Breathing, Delirium, Convulſions, *&c.* *Blood-letting* is immediately to be adviſed, and may be repeated as the Nature of the Symptoms ſhall indicate. Indeed there is no Time of the Diſeaſe wherein it may not be neceſſary to draw Blood, if the Violence of the Fever requires it. *Boerhaave* lays ſo great a Streſs upon Blood-letting, and treating the Small-Pox like an inflammatory Diſeaſe, as to think that it may be reſolved without coming to Suppuration. And the learned *Mead* tells us, that he has often obſerved, when in the Beginning, a vaſt Number of Puſtules forboded a Diſeaſe of the worſt Kind; that the Face of Affairs was ſo remarkably changed upon one or two Bleedings, that the Puſtules increaſed in Size, and diminiſhed in Number (the Greatneſs of the Diſeaſe giving Way to the Greatneſs of the Remedy); by which Means, Nature acquired ſufficient Strength to expel the noxious Humor.

The

The Blood on the firſt Day generally appears florid, like unto that of healthy People; but on the ſecond, third, or fourth Day, it appears inflamed like that of pleuritic People, and ſo much the more, as the Illneſs is of older Date and fiercer.

Hemorrhages at the Noſe, bloody Urine, or uterine Diſcharges, frequently occur in the Beginning of this Diſtemper; which, when they are occaſioned merely by the Heat and Rarefaction of the Blood, and not from any malignant Putridneſs diſſolving its Texture, rather afford Relief than threaten Danger; unleſs it be when they prove ſo great, as to weaken the Patient very much.

Nothing but the tendereſt Age, and extreme Weakneſs, from long preceding Diſcharges, can forbid Blood-letting in the Beginning. In Children, the Matter of the Infection moſt commonly has ſuch an Influence on the ætherial Spirit in the Nerves, as to cauſe Convulſions ſometimes before the Eruption; and theſe, though it may ſeem ſtrange, are generally reckoned rather a good, than a bad Sign. We are told by *Sydenham*, that the Small-Pox that ſeize young Children with a Convulſion are favourable, and ſeldom flux much. Now, in this Caſe, *Blood-letting* is to be carefully avoided, becauſe thoſe involuntary Motions are occaſioned by the Patient's Weakneſs, which is ſo increaſed by that Evacuation, that Nature becomes incapable of throwing out the morbid Matter upon the Skin. *Antiſpaſmodics*, and *bliſtering Plaiſters*, are moſt proper here. But if the Child be of a robuſt, ſtrong Conſtitution, and full Habit, *Leeches* may be ſafely applied to the Temples, or behind the Ears;

or Blood may be drawn by any other Means, in a moderate Quantity.

Extreme Pains, like the Pleuriſy, Rheumatiſm, Stone, &c. ſometimes hinder the Eruption of the Small-Pox, by cauſing a Sort of a convulſive Spaſm over the whole Body; and indicate large and repeated Bleeding. I have always obſerved, ſays *Sydenham*, that young Men ſeized with violent Vomitings, and Sickneſs, and Pain more than uſual, the following Small-Pox fluxed beyond Meaſure. In ſuch a Caſe, therefore, it is our Duty to endeavour all we can to hinder the over-haſty Aſſimilation of the variolous Matter by Bleeding, and by the moſt cooling Regimen.

The *flux* Pox generally come out on the third Day, ſometimes before, ſcarce ever after it; and by how much the ſooner they come out, ſo much the more will they flux. Here again we have a ſtrong Indication for Bleeding, perhaps more than once, before the Eruption, in order to check the impetuous Motion of the Blood.

Women with Child are in imminent Danger of Miſcarriage, though moſtly indeed at the Time of the ſecondary Fever; but Blood-letting, however, is abſolutely neceſſary at the Beginning, as well as a cooling Regimen. In Women, alſo, we are often alarmed at the *Fluxus Menſium* happening during the Small-Pox; but it oftentimes affords Relief, as well as threatens Danger. The more nearly it coincides with the Time of the ripening of the Puſtules, ſo much the worſe; and this ought always to be inquired into, (as far as we are able, for it oftentimes happens at irregular Times) and if the regular Period ſhould be about that Time, I think it a good Reaſon to take away Blood, rather more plentifully

plentifully in the firſt Fever, than we might otherwiſe have done, in order to put it off to ſome longer Time, or elſe abate it in Quantity.

Proper Regard being had to Blood-letting, the next Thing to be done, is to exhibit a *Vomit*, if the Stomach happens to be loaded with Phlegm, or Bile, or Food unſeaſonably taken. The Reaſon on which this Practice is founded is, that we follow the Conduct of Nature, which always excites Vomitings, in order to caſt out ſuch Foulneſſes as may remain from Indigeſtion, and alſo ſome Part of the variolous Humor, which is ſecreted by the Glands of the Stomach, and which occaſions thoſe terrible Sickneſſes. If theſe peccant Humors were ſuffered to remain in the *primæ Viæ*, they would vitiate the Chyle, and ſend their ill Qualities into the Blood; which would neceſſarily increaſe the Fever, and all the other bad Symptoms. It has been obſerved, that when theſe Evacuations are plentiful, the Diſeaſe is more gentle.

But then, on the other Hand, we are told, that when the Stomach is not primarily affected by Bile, Phelgm, or indigeſted Matter, but the Vomiting and Sickneſs ariſe merely from variolous Matter flowing into the Stomach, *Vomits* will only bring more of it there; and that there is great Danger of their filling the Stomach, Throat, Head and Face fuller of the Small-Pox by the Action of Vomiting; which propels the Blood with greater Vehemence to all thoſe Parts. That there is ſome Force in this Objection muſt be confeſſed, eſpecially juſt before, or at the Time of Eruption; but if it be on the firſt or ſecond Day of the Fever, and you judge from the Patient's Habit of Body, or Courſe of Life,

that the Stomach and firſt Paſſages are foul, you will never repent giving a *mild* Emetic, ſuch as *Oxymel of Squills*, or the *Indian Root*. The Omiſſion of a Vomit at the firſt Seizure, may be the Occaſion of a Diarrhæa in the Progreſs of the Diſtemper.

After Vomiting, it will be proper to empty the Bowels by ſome ſmooth emollient Clyſters; ſuch as will not raiſe any Diſturbance in the Body by their Heat and Acridneſs: For ſince it is moſt evident, that this Diſtemper is accompanied with Inflammation of the Blood and Humors, keeping the Body open in the Beginning, by lenient Methods, is quite neceſſary, and eſpecially if we conſider that *Adults* are ſubject to be coſtive during the whole Courſe of the Small-Pox; and therefore leaving a Load of Excrements in the Bowels from the Beginning, would prove troubleſome in the future Stages.

Neceſſary Evacuations being made by Bleeding, Vomiting, and Clyſters, the next Intention is to moderate the Effervеſcence and too great Heat of the Blood, by *cooling Diuretics*, and very *mild Diaphoretics*. There is ſuch a wonderful Correſpondence between the Skin and the Kidnies, that whatever Fluid is wont to be ſecreted by the cuticular Glands, may with great Eaſe be evacuated by the urinary Paſſages, & *vice verſa*. Wherefore it is very proper to blend together ſuch Kind of Medicines as may anſwer, in a moderate Degree, both theſe Intentions; whereby we may draw off as much of the Matter of the Diſeaſe, as can be done by theſe Paſſages. The *bezoardic Powder*, *compound Powder of Crabs Claws*, *with purified Nitre*, *or Sal Polychreſtum*, given every *fourth*, or *ſixth* Hour, and

waſhed

waſhed down with ſome *cooling ſubacid Liquor*, will beſt anſwer theſe Purpoſes. A plentiful Uſe of aceſcent Liquids will alſo help to reſtrain a Tendency towards Putrefaction in the Humors, occaſioned by the Venom of the infecting Matter.

I cannot too often admoniſh all young Practitioners againſt exhibiting *Alexipharmics*, or *ſtrong Sudorifics*, at this Time of the Diſeaſe; for more People are loſt in the Small-Pox by being over-heated, or by being thrown into large and violent Sweats in the Beginning, eſpecially of the *flux* Pox, than by all other Errors committed at all other Times. The Reaſon is, becauſe all hot, acrid Medicines increaſe the inflammatory Stimulus of the infectious Miaſmata upon the whole nervous Syſtem; and the great and unnatural Sweats drain the ſmall Blood-Veſſels of the neceſſary Fluid, by which Means the Circulation is impeded, the Blood coagulates and choaks up the capillary Veſſels; whence the Inflammation is hurried on into a Gangrene, without being able to finiſh the neceſſary Work of Impoſthumation in the Glands of the Skin. I certainly know, ſays *Sydenham*, that the ſlower the Small-Pox come out the more univerſal will be the Separation of the pocky Matter, and the better will the Pox ripen, and the leſs Danger will there be of their ſtriking in.

The Rock, therefore, upon which infinite Numbers of People have loſt their Lives, is the ridiculous Notion of forcing out the Small-Pox, by giving *hot fiery* Medicines, which exagitate the Blood, cauſe an immoderate Aſſimilation of the variolous Matter, and fill the whole Surface of the Body with Puſtules.

But, on the other Hand, notwithſtanding what has been ſaid, we muſt not be ſo ſollicitous about preventing too great an Ebullition in the Blood, as to hinder the Eruption of the Puſtules by the contrary Extreme, viz. by making too large Evacuations; by perſiſting too much, or too long in a Courſe of Refrigerants; or by expoſing the Patient to the Injuries of the Cold. The niceſt Rule to ſteer by, is neither to increaſe the Motion of the Blood too much, nor ſuffer it to grow languid. Some Exceſs of Motion is neceſſary at this Time, for ſince the Fever is the Inſtrument which Nature makes Uſe of to diſſolve the Lentor, and to caſt out the morbid Matter upon the Skin, we muſt take Care not to weaken the *Vis Vitæ* below the Standard, whereby the Sizineſs of the Humors will increaſe, and Death will be the Conſequence.

Bliſters are not to be applied in the very Beginning of this Diſeaſe, whilſt the Fever rages, unleſs ſome particular Symptoms require their Uſe; becauſe there is juſt Reaſon to fear, that the great Commotion raiſed in the Blood by the Acrimony of the Flies, may exaſperate many of the Symptoms which ariſe from too great Heat and Effervescence in the Blood already.

The *Food* is to be adapted to the ſeveral Stages of the Diſeaſe. In the Beginning the Body ſhould be kept open by boiling preſerved Fruits in the Food, as Figs, Currants, Prunes, Tamarinds, *&c.* in Water-Gruel, or Panada; and giving for Drink, Emulſions, Barley-Water, Small-Beer acidulated with Orange or Lemon-Juice, or weak Whey turned with Rheniſh Wine, or with Apples boiled in Milk.

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We are adviſed, by the celebrated Dr. *Mead*, to keep the Patient in Bed during the firſt Days of the Diſtemper, taking Care to defend him from the Inclemency of the Winter, by proper Means, and to moderate the exceſſive Heat in Summer by cool Air. Nothing gives greater Relief to the Patient than the breathing pure cool Air. Hot Air cauſes Difficulty of Breathing, increaſes the Inflammation, *&c.* *Sydenham* indeed ſays, the Patient ſhould not be confined to his Bed, in the Day Time, before the Small-Pox are all come out; but if we conſider how great a Propenſity there is to ſweat in grown Perſons, which does not leave them 'till the Puſtules begin to ripen; and that this is a favourable Symptom, generally forerunning the diſtinct Sort; I think there can be no Injury in ordering the Patient to keep his Bed, with the Cautions above-mentioned.

Another Thing, though it may ſeem trifling, may be of Eaſe and Benefit to the Patient, and that is, ſhaving the Head before the Eruption; by which Perſpiration may be increaſed, and the Brain kept cool, by Reaſon there will not be ſuch a Load of Filth lying on the Scalp in the laſt Stages, as when the Hair is long.

Thus far we have had Regard only to the Fever preceding the Eruption; we ſhall now ſpeak of thoſe terrible Symptoms *Hæmorrhages* and *bloody Urine*, which frequently occur in the Beginning of this Diſtemper; and which are generally ſuppoſed to ariſe from too much Heat and Rarefaction of the Blood, or elſe from a Diſſolution of its red Globules by the Activity of the poiſonous, putrid Matter of the Small-Pox. Blood is not only evacuated by Urine, but oftentimes by Stool; ſometimes by the Noſe; at other Times

at the Mouth, when they cough, ſpit, or vomit: Nay, it has been known to ſtart out of the Eyes, and even through the Pores of the Skin.

Whatever therefore will abate the Velocity, Heat, Rarefaction and Momentum of the Blood, and incraſſate or condenſe its conſtituent Globules into nearer Contact with each other, will be proper in theſe Caſes. *Blood-letting* will leſſen the Velocity, Heat and Momentum of the Blood, and will be proper at the Beginning, whilſt the Patient's Strength will admit of it, or whilſt the Blood is in an Inflammatory State; but when the *Craſis* of the Blood is ſpoiled, when the red Globules are already ground down and diſſolved, by too great a Quantity of acrimonious Salts, letting Blood will not reſtrain theſe Complaints, but will increaſe them, and haſten Death.

All *active* Medicines, which ſerve only to diſſolve the Salts in the Blood, and to put them in Motion, are intirely wrong. The ſame may be ſaid of *Bliſters*; it being well known, that the Acrimony of the Spaniſh Flies will ſometimes cauſe Blood to flow with the Urine, and appear in the Chamber-Pot like Streaks. *Camphire* has been ſtrongly recommended in theſe Caſes; but, I muſt own, for the Reaſons above-mentioned, that I cannot comprehend the Uſefulneſs of it; but, on the contrary, I think it a dangerous Remedy.

The moſt common Practice in theſe Caſes has been to depend on a prudent Uſe of the *mineral Acids*, with *incraſſating Aſtringents*; ſuch as Oil of Vitriol, Alum, Tartar vitriolated, Gum Lac, Arabic, Olibanum, Gum Dragon, Japan Earth, Bloodſtone, Balauſtines, Comfry and Nettle Roots,

Roots, Diaſcordium, Syrup of Poppies, Briſtol Water, Juice of Lemons, &c. But the moſt modern Practice is to exhibit the Peruvian Bark, joined with Alum, and Oil of Vitriol. *Mead* recommends a Drachm of the Bark to be given every *ſixth* Hour, and three Hours after, a proper Quantity of *Alum* in the following Manner. Melt three Parts of Alum on the Fire, with one Part of Dragons Blood, and when cold, powder it; a Scruple of which, made into a Bolus with Conſerve of red Roſes, will be a proper Doſe. Dr. *Wall*, in a Letter to Dr. *Wilmott*, gives many Inſtances of the good Succeſs of the *Bark* and *Alum* in the very Beginning of the Small-Pox, and continued through its whole Courſe; whereby, not only Petechiæ, Hæmorrhages, &c. were cured, but the ſecondary Fever prevented. The ſame ingenious Author obſerves, that the beſt Way of giving the Extract of Bark to Children and delicate Perſons is in thin Chocolate well ſweetened. The moſt convenient Manner of giving the Oil of Vitriol is in the Tincture of red Roſes, or Briſtol Water.

And here give me Leave to obſerve, that, though mineral Acids are ſo very uſeful when there is an Hæmorrhagy, or bloody Urine, from a putrid Diſſolution of the Blood; yet, at all other Times, before the Stages of Augmentation and Suppuration are fully ended, they ſeem to be abſolutely inconſiſtent with the Efforts and Deſigns of Nature. If we conſider that the Fever preceding the Small-Pox, is no more than a Struggle of Nature to aſſimilate and caſt out of the Blood the putrid, variolous Matter, it will appear that ſtrong mineral Acids, which thicken the Juices, and bind the Blood-Globules more firmly together, muſt needs be im-

proper, unleſs there be Symptoms or Danger of Hæmorrhages, &c. At this Time, indeed, we do what we can to check the Motion of the Blood, when it is too impetuous; but then we do it, or at leaſt ought to do it, by ſuch Medicines as dilute and help forward the Separation of the morbid Matter. There is a wide Difference between the Action of Vinegar, or vegetable Acids, and that of Oil of Vitriol; which ſeems to be too rough, aſtringent and incraſſating to be uſed during the Time of the *firſt* Fever, except it be, as has already been ſaid, when the Blood is diſſolving, and running out of its proper Channels. And during the Stages of Eruption, Augmentation and Maturation, when all we have to fear is from a Lentor, or too great Viſcidity of the Juices, preventing the Puſtules from coming out freely, or filling as they ought, mineral Acids moſt certainly will aggravate all the Complaints. In fine, they are only to be given when bloody Urine, Hæmorrhages, red Fluſhings, or petechial Spots happen, from an alkaline Acrimony diſſolving the Craſis of the Blood: But for the Heat, and Hurry of the Fever, Watching, Delirium, Inflammation, &c. they are not ſo proper as milder vegetable Acids.

If an Hæmorrhagy, bloody Urine, or petechial Spots, threatning a Gangrene, happen in any of the ſucceeding Stages of the Small-Pox, the ſame Method of Cure, as is above-mentioned, is to be obſerved. And here it may not be improper to lay down one general Rule, which the learned Dr. *Mead* hath favoured us with; which is, that whatever acute Diſeaſe comes upon the Small-Pox, it requires to be treated with its own peculiar Medicines, and generally bears them very well.

Thus

Thus much being premiſed, proceed we now to the *State of Eruption*, which taketh up *four* Days, in which Time it is fully compleated, or all the Small-Pox are come out. In the ſimple diſtinct Sort the Fever now goes off, the Patient ſeems chearful, and every Thing puts on a good Aſpect. But in the malignant confluent Kind the Fever ſtill rages, nor does it commonly go off during the whole Courſe of the Diſeaſe, by Reaſon of the Acrimony of the invenomed Lymph, or from the too great Abundance of it which cannot be ſufficiently diſcharged through the cutaneous Glands.

During this State, a temperate cooling Regimen is to be obſerved, and if the Symptoms run high, if the Pains and Fever continue, with Delirium, Peripneumony, *&c. Blood-letting* may ſafely be uſed on any of theſe four Days. Cupping-Glaſſes extract the Blood ſo ſlowly as to make but little Revulſion from without; ſo that the Puſtules, in the above-mentioned Condition, for the moſt Part come forth much eaſier.

Dr. *Huxham* obſerves, that the Delirium attending the Eruption of the Small-Pox is very much alleviated by the Application of emollient Cataplaſms of *Milk and Bread, boiled Turneps, &c.* to the Feet, in Children eſpecially. *He* thinks he had Reaſon to imagine, in many Caſes, that it hath been a Means of driving the variolous Matter that Way; and by making the Eruptions more copious in the lower Parts, the Face and Breaſt have ſuffered leſs than he had Reaſon to fear otherwiſe might have happened. It is the Number of Puſtules about the Head, Throat, and Breaſt, that are ſo juſtly to be feared. The great Tenderneſs of the

Feet after the Application of Cataplaſms is a trifling Diſadvantage, in Compariſon of the Benefit that may be received by them; and ſo are thoſe ſhooting Pains which often affect the Legs on the Uſe of thoſe Cataplaſms: Not to ſay, that theſe are rather an Argument of the Benefit ariſing from their Uſe.

Narcotics are not ſafe 'till the Eruptions are finiſhed, becauſe all Anodynes thicken the Juices, and by that Means obſtruct the Separation of the morbid Humor from the Blood. It ſometimes indeed happens, that there are convulſive Spaſms, attended with ſuch extreme Pains as to hinder the Eruption of the Small-Pox, and in ſuch Caſes *Opiates* bid fair to relax and widen the Paſſages; but even here, I ſhould adviſe *Blood-letting* and *Emollients* before them, eſpecially if the Fever be violent, or has raiſed a Delirium.

In the Small-Pox there is a manifold Variety in the Puſtules; and even in the moſt favourable Sort, it often happens that the morbid Matter is not properly caſt out, or it is reabſorbed into the Blood, by Cold, or ſome other Accident, or there is ſome ſecret Malignity in the Blood, and then ſad Tragedies follow.

When Nature is not ſtrong enough to ripen the Pus, and the Pimples, after the *fourth* Day, are not florid, they contain nothing but a pale, thin, and pellucid Water; whence this Sort is called the *Chryſtaline*, and moſt commonly belongs to the confluent Sort. In this Kind of the Small-Pox the Water of the Puſtules can never be brought to a laudable Suppuration; in which Caſe, while the thinner Parts of this Water are made to tranſpire through the Skin by giving

mild

mild Diaphoretics, the groſſer Parts may be carried off through the urinary Paſſages by *Nitre*; taking Care, at the ſame Time, to cheriſh the Heart, and to promote the Flux of Humor into the Puſtules by giving *Raleigh*'s *Cordial*, *the Cordial Confection*, *the Bezoardic Powder*, *the Diaphoretic Antimony*, *Saffron*, *&c.*

Sometimes from the Crudity of the Humors, not well digiſted, there ariſe ſome round, concave, empty, ſoft Pellicles, like Bladders, without the leaſt Drop of Lymph in them. Theſe Dr. *Friend* calls the *Siliquoſe*. They ſometimes grow more ſolid and horny.

There is another Sort in which there is neither Vacuity nor Lymph in the Puſtules; but Nature protrudes certain Tubercles which greatly reſemble *Warts* in Hardneſs. Theſe generally preſerve the ſame Figure and Hardneſs from the fourth Day to the End of the Diſtemper, and are called *Verrucoſe*. The warty Small-Pox is more dangerous than the cryſtalline, becauſe the Matter of the Diſeaſe, being too thick, can neither ſuppurate, nor paſs off by Urine. We muſt endeavour in this Caſe to abate the Fever, and to carry off the Seroſities by Diaphoretics, Diuretics, Bliſters, and by keeping the Body open.

In the malignant Small-Pox the Puſtules are ſometimes black, and riſe but little. When they are opened, there iſſues out a very black and livid Blood, and their Bottom is found mortified. The Spaces between the Puſtules are of a dark blackiſh Colour; the Fever is very acute, and its Paroxyſms violent. Here *Acids*, the *Bark*, and whatever elſe is proper to prevent Putrefaction and Diſſolution of the Blood-Globules muſt be made Uſe of without Delay.

When the Interſtices between the Puſtules look red, are hot, ſtretched and ſwelled, it is ſo much the better, becauſe it is a Sign of the Circulation being preſerved there. But when they are pale, or grow tawny, it is bad; by Reaſon that the Circulation of the Juices is cut off in theſe Parts, and drove back, and increaſed in the internal nobler Parts; whence ariſe Inflammations and Gangrenes.

When either of the above-mentioned Kind of Puſtules happen, the Diſeaſe is hardly ever free from Danger; and therefore the Phyſician ſhould be cautious to affirm there is no Danger, even when they are diſtinct; for there is ſomething in every Kind which will often elude his Sagacity. *Mead* ſays the Reaſon why the *confluent* Small-Pox is worſe than the *diſtinct* Sort, is not becauſe the Matter of the Diſeaſe is more abundant in the former than the latter, but becauſe it is not puſhed out in a proper Manner.

But to proceed: Sometimes we meet with a total Suppreſſion of Urine, eſpecially in young Men, at this Time of the Diſeaſe, though it more commonly happens at the State or Declination. It is occaſioned by the Heat and Acrimony of the Serum, and is cured by Acids. *Sydenham* recommends taking the Patient out of Bed, and expoſing him to cool Air. But *Mead* ſays the moſt convenient Method is, to open the Body by a *Clyſter*, eſpecially if, the Puſtules now appearing, there be any Danger of taking Cold; and then to inſiſt a little on *mild* diuretic Medicines.

Petechial Spots break out at any Time of the Diſeaſe; but the ſooner they appear ſo much the worſe. They may be occaſioned by too free a Way of Life before the Seiſure, or too hot a Regimen afterwards; or from the Venom of the

the infectious Matter of the Small-Pox melting down the Blood-Globules; for every ſingle purple Spot conſiſteth of Blood Globules puſhed out of their proper Canals, and forming a Molecula. The brighter Red the Petechiæ are of, ſo much the better. A leaden, duſky, brown Colour is the worſt; or when they ſpread into broad, round Spots, of a delicate fair blue Colour upon the Breaſt, Back, and Face, they are real Mortifications.

The Cure depends upon a *temperate cooling Regimen, Acids, and the Peruvian Bark*; the laſt of which Dr. *Monro* recommends very ſtrongly, eſpecially when the Petechiæ ſhew a Diſpoſition towards a Gangrene. He ſays, when either a right Suppuration did not come into the Puſtules, or the Petechiæ ſhewed a Diſpoſition to a Gangrene, he had the Pleaſure to ſee the good Effects he expected from it in ſeveral variolous Patients to whom he gave the Bark, *viz.* the empty Veſicles filled with Matter, watery Sanies changed into thick white Pus, the Petechiæ become gradually more pale coloured, and at laſt diſappeared. To Children, the Bark may be given in the Form of Clyſters, unloading the great Guts firſt of all by a laxative Injection.

The next Stage is that of *Augmentation*, or *Suppuration*, which taketh up the 5th, 6th, 7th, and 8th Days; for about the 9th Day the Puſtules uſually attain their utmoſt Magnitude. At this Time, and indeed all along the Diſeaſe, be careful in examining the State of the Pulſe, the Urine, and Manner of Breathing. If the Fever ſhould riſe too high, if a Quinſey, Peripneumony, Anxieties, Deliria, Convulſions, or any other Phænomena ſhould happen from an inflamed State of the Blood, you muſt treat them as

original Diſeaſes. You may ſafely bleed, give antiphlogiſtic Medicines, and diluent Clyſters; for in young, vigorous, plethoric Patients, ſuch Treatment will not have any bad Effect by weakning them, or making the Swellings of the Face and Extremities fall. On the contrary, if the Inflammation ſhould be exaſperated by hot Medicines, you may expect the moſt fatal Conſequences.

The learned Dr. *Simſon*, Profeſſor of Medicine in the Univerſity of St. *Andrew*, tells us, that he ventures, through the whole Time of Suppuration, to procure to his Patients the ordinary Courſe of their Belly at leaſt, and with the moſt agreeable Succeſs; for he never found the Small-Pox keep up better, and the Patient eaſier, than under this Regimen: So that out of about forty Patients, moſt of which were of the coherent Kind, and ſome confluent, few of them had ſo much as the Appearance of a Fever upon the Turn of the Diſeaſe; they drank Small-Beer, and Whey, and eat boiled Prunes at Pleaſure.

Infants at no Time can be eaſy under Conſtipation; ſo that keeping up the natural Courſe of their Belly, or even making them more open is highly uſeful, eſpecially if an exceſſive Swelling of the Head, Hands, *&c.* calls for it; for it is poſſible for the Swelling to go beyond its Bounds, and as Dr. *Mead* obſerves in his Letter to Dr. *Friend*, you will often find your Patient expiring under it. Hence it follows, that the Riſe and Filling of the Puſtules, and the Swelling of the Membranes and Skin, ſhould be looked upon as two very different Things; the former cannot riſe too much, but the latter, when exceeding, may be the Introduction to very bad Conſequences.

But

But if the Tumor and Inflammation of the Head and Face is as it ought to be, if the Saliva is rightly diſcharged, if the Breath is eaſy, and no other bad Symptom appears, you have nothing to do but gently to aſſiſt Nature, by giving good Store of ſmooth, diluting Liquors, which will forward the Separation of the morbific Matter from the Maſs of Blood, and help to diſcharge it into the Puſtules as into ſo many Phelgmons. *Narcotics* are very uſeful in this Stage, as will be ſhewn hereafter.

On the contrary; if the Pulſe be feeble and ſlow, and beateth below 80 in a Minute; when the Fleſh feeleth cold, the Patient groweth ſick and faint, and the Puſtules and Interſtices look pale, and are hardly elevated, you muſt have immediate Recourſe to *Cardiacs*, and ſuch other Medicines as will attenuate the Blood and Lymph, by increaſing the Velocity of their Motion. For this Purpoſe are generally uſed *Pulv. Contrayero. comp. Confect. Cardiac, Conf. Alkerm. Antimon. diaphor. Rad. Serp. virg. Confect. Fracaſtor. Theriac. Androm. Mithridat. Camphor. Sal. Succin. vol. Aſa fœtida, Myrrh, &c.* Thus *Cardiacs* may be given in order to raiſe the Fever a little, if it be too low, increaſing or diminiſhing the Doſes, as it ſhall be found neceſſary, 'till the Time of the Criſis.

But above all *Paregorics* are to be given during the whole Stage of Augmentation, and are to be repeated once or twice in 24 Hours, according to the Urgency of the Symptoms; for by abating the Pain and Reſtleſſneſs of the Body, and making the Mind eaſy, they are of more Service than any other Medicine; and what we apprehend from their incraſſating Nature, is amply made amends by their other

Virtues. The eaſing of Pains, and taking off all nervous Spaſms, occaſioned by the Acrimony of the variolous Matter, is the native Effect of *Narcotics*; and in this Light they are moſt charming Medicines. *Sydenham* tells us, that *Narcotics*, notwithſtanding their incraſſating Virtue, are of excellent Service to promote Salivation; which can be from no other Principle than their relaxing Property, by which Means the Diameters of the ſecerning Ducts may be enlarged. And hence alſo it is, that, in this Stage of the Diſtemper, the Puſtules are filled in a better Manner by Paregorics, than by any other Medicine. *They* ſhould be given early in the Evening, becauſe a Reſtleſſneſs, and other bad Symptoms come on about that Time. The following Cautions, however, it will be neceſſary to obſerve, *viz.* that *Narcotics* do not agree ſo well with *Infants* as *adult* Perſons. And in *Adults*, whenever there happens to be an Angina, Peripneumony, Delirium, or any other inflammatory Symptoms, with a full quick Pulſe, and conſtipated Belly, a Subſtraction of ſome of that Matter, with which the Veſſels are overloaded, ſeems a more rational Practice, than damming up the Secretions by a conſtant Uſe of Opiats.

A ſudden and untimely ſinking of the Puſtules is a dangerous Symptom. *Strong Cardiacs*, which are ſo much celebrated by *Morton*, and others, are not followed with any Judgment, unleſs at this one Time of the Small-Pox; when they are either not ſufficiently advanced, or elſe fallen in again. Whenever the Puſtules ought to tend to Maturity, and no Suppuration is made, by Reaſon of too ſlow a Motion of the Blood; if a Languor or Faintneſs, an Anxiety and Oppreſſion of the Spirits, together with a low Pulſe,

and

and Coldneſs of the Extremities happen, beſides the free Uſe of Cardiacs, and Paregorics, *Bliſters* muſt be laid on all the Limbs, and renewed as Occaſion requires.

The following Obſervation holds good in all Kinds of the Small-Pox, *viz.* the more the Puſtules tend to Suppuration, the greater are the Hopes of Recovery; and, therefore, when *that* does not go on according to our Wiſhes, all poſſible Means are to be employed to throw the morbific Humor from the Blood into the Puſtules.

Bleeding is not ſafe in ſuch a Caſe, unleſs ſome violent Symptom calls for it. Neither are *Acids*, eſpecially of the mineral Kind, proper at this Time. A conſiderable Incraſſation of the Lymph is more to be apprehended in this State of the Diſtemper, than a Diſſolution of the Juices. Some Exceſs of Heat is neceſſary towards filling the Puſtules and ripening the Matter; and therefore theſe Things are not to be checked too much, nor too haſtily by Bleeding, Acids, *&c.*

A Salivation in grown People, and a Looſeneſs in Children, are almoſt perpetual Concomitants of the flux Pox, and are of great Uſe in evacuating the morbific Matter. They are the Effect of an obſtructed Perſpiration from the Fulneſs of the Small-Pox, or from a Diſſolution of the Juices, when the Lymph is melted down by the Acrimony of the putrid invenomed Matter. The Salivation ſometimes happens at their firſt coming out, ſometimes not 'till a Day or two after. Firſt the Matter is thin, and in great Quantity; but about the 11th Day it is more clammy, and more difficultly hawked up. A Looſeneſs does not invade Children ſo ſoon as Spitting does grown People; but at what

Time ſoever it comes, it continues, or ought to do ſo, through the whole Courſe of the Diſeaſe.

Narcotics, therefore, are not to be given to *Children* in the *flux* Pox, when they have a Looſeneſs, becauſe if that ſhould be ſtopt by them, when the Puſtules are not capable of receiving all the morbid Matter which uſed to be caſt off by the Bowels, it is great Odds but it ſeizes on the Nerves, and brings on Delirium, Convulſions, *&c.* But in the *diſtinct* Sort, where the morbid Humor is but in ſmall Quantity, a Looſeneſs but ſeldom happens; and if it did, it might do Harm, by Reaſon a ſufficient Evacuation of the variolous Matter may be performed by the Puſtules themſelves; and therefore ſhould too great a Revulſion be made from the Skin by a Looſeneſs, it would prevent the filling of the Puſtules, and be of bad Conſequence.

Both Salivation, and Suppuration of the Puſtules, are promoted by drinking good Store of ſmooth, mild, demulcent Liquors; which will neither heat nor provoke to ſweat. Such are clear *Poſſet-Drink*, made of Milk and Small-Beer; *Oatmeal*, or *Barley Gruel*; *Oatmeal Caudle*, *weak Sack-Whey*, or *Whey* turned with *Rheniſh Wine*, or good old *Small-Beer* with a *Toaſt* in it; the common *Emulſion*, or *pectoral Drink*. Take Care to keep the Neck and Throat warm. Gargle the Mouth and Throat frequently with *warm Small-Beer* and *Salt Prunel*; or *pectoral Drink*, with a little *Oxymel of Squills*. When the Salivation abates, and the Matter grows exceeding glutinous, the beſt Gargles are *Cyder* and *Honey*, or *Vinegar*, *Water* and *Honey*, with *Oxymel of Squills*, or a little *Nitre* or *Salt Ammoniac*. The vegetable Acids are more ſaponaceous and abſterſive, and not

not ſo reſtringent as Oil of Vitriol, &c. To promote Spitting, the following is very good. Recipe,----*Lact. Ammon. uncias duas, Oxymel. Scyllitic. unciam unam, Aq. Menth. vulg. ſimpl. uncias duas, M. cujus cap. Cochlear. largum quolibet Tempore.* An *oily Linctus*, or ſome *Mucilages*, may alſo be proper at this Time, to keep the Throat ſupple and moiſt.

For *Food*, Milk Porridge, or one Part Milk and three Parts Water boiled together; Sugar Sops, Barley Broth, Rice Gruel, plain light Biſcuit; and towards the latter End, Figs, Bread and Butter, Toaſt and Beer, roaſted Apples, &c. are good to clear the Throat from foul Slime and Stoppage.

The Flowing of the *Menſes* at an unuſual Time is a common Caſe with Women, and very dangerous when it coincides with the Time of ripening the Puſtules. If the Fever runs high, and there is an extraordinary Effervеſcence of the Blood, a moderate Diſcharge by this Means is beneficial; but if the Diſcharge ſhould prove too great, or be the Conſequence of Weakneſs, or too low a State, it muſt be reſtrained by all poſſible Means, *viz.* by Acids, Stiptics, Paregorics, and a cooling Regimen. Though the Puſtules ſhould ſink by Reaſon of this Flux of Blood, *Cordial Medicines*, and a *hot Regimen* are not to be complied with, becauſe they would inevitably increaſe the Flux. The ſame may be ſaid in Regard to the *Flowings* after Miſcarriage, or Delivery, in caſe they ſhould happen about this Time of the Diſeaſe. *Epiſpaſtics* are bad in all theſe Caſes; becauſe they cauſe Sharpneſs of Urine, and force too much.

We are now arrived to the *fourth* or *laſt* Stage of this Diſtemper, *viz.* that of *Maturation* or *Declination*; in which the Puſtules being full of mature and laudable Matter, firſt begin to be incruſtated and hardened, and to be covered with a yellowiſh Scab. This Stage uſually taketh up the 9th, 10th, 11th, and 12th Days; or extends from the End of Suppuration to ſuch Time as the Puſtules dry up and fall of.

About this Time, or rather a Day or two ſooner, it is, that the *ſecondary* Fever makes its Appearance; the Mouth and Throat grow more ſore, and are more ſwelled up; the Saliva grows viſcid, and imminent Danger too often appears from many unforeſeen Accidents. The *ſecondary* Fever is always of a putrid, malignant Kind, ariſing from the variolous Matter which never has been thrown off the Blood and Humors to the Skin, or from ſome Part of the *Pus* being at this Time ſucked into the Veins, as the Puſtules harden and dry; which contaminates the Blood, raiſes a freſh Ebullition in it, and irritates the Membranes and Nerves ſo as to excite a Fever of the worſt Kind, with the worſt Symptoms. And if it be ſuffered to continue in the Blood, and does not fall upon the Extremities, ſo as to make them ſwell ſufficiently; or if it be not carried quite off by ſome proper Evacuations, it muſt neceſſarily produce cruel and ſcarce ſuperable Effects, ſuch as Deliria, Phrenſies, Quinſies, Peripneumonies, Pleuriſies, bloody Fluxes, *&c.*

Some Authors recommend cutting open the Puſtules, as ſoon as Maturation is compleat, in order to hinder the variolous Matter from being reabſorbed into the Blood. This Precaution alone, they ſay, is often ſufficient to prevent the

ſecondary

ſecondary Fever, or at leaſt to abate it conſiderably. And, indeed, the Practice ſeems rational; we do the ſame Thing in all other ſuppurated Tumors, and daily Experience convinces us what great Eaſe is procur'd as ſoon as the *Ichor*, or *Sanies* is diſcharged. But to proceed:

If the Fever runs high, if there be a Difficulty of Breathing, a hard full Pulſe, Pains in the Side or Throat, Watchings, Anxieties, with a pale and thin Urine, Blood-letting is immediately to be ordered to as large a Quantity as the Strength will admit of. An *Hæmmorrhage* of the *Noſe* oftentimes ſaves the Patient when there are no Hopes. The Neceſſity of Bleeding at this Time, is alſo demonſtrable by the opening of thoſe who have died of this Diſtemper: For we always find either extravaſated Blood in the Brain; a Quantity of Serum diſcharged into the Ventricles, or upon the Circumvolutions of the Brain, under the *Pia Mater*; or a prodigious Number of red Specks in the medullary Subſtance of this Part, which plainly demonſtrate its Inflammation.

After Bleeding, *Attemperants*, *Refrigerants*, and *Antiputreſcent* Medicines are proper. This Fever acts with greater Rapidity and Violence, and is much more dangerous than a ſimple Fever from mere Exceſs of Motion; for here the acrimonious, putrid Salts not only infect and corrupt the Blood, but they ſtimulate the Nerves in a violent Degree, and very often ſeize on the ſubtile Æther within them ſo as to occaſion immediate Death. Hence appears the Neceſſity of correcting the acrid Stimulus, and putreſcent Quality of the variolous Matter, by a plentiful Uſe of *aceſcent* Liquids, ſuch as *White Wine Vinegar*, *Juice of Oranges*, *Lemons*,

or *Oil of Vitriol*; which moſt efficaciouſly reſiſt a Tendency towards Putrefaction, and are alſo proper to abate the febrile Heat and Inflammation.

Sydenham tells us, that *Spirit of Vitriol* commonly ſtopt the Salivation the 10th or 11th Day; but yet ſome Stools were wont to ſupply its Place. If therefore a free Uſe of Acids ſhould have this Effect, and no Stools ſhould follow, *Clyſters*, or *lenient Purges*, are plainly indicated by Nature.

Volatile, cauſtic, alcalious Salts and Spirits are very pernicious in this Fever; ſince they increaſe the putreſcent State of the Fluids, and help to melt down the Craſis of the Blood. Dr. *Liſter* tells us, that in the malignant Small Pox he found the Blood, when cold, exceſſive tender and friable, ſo as the ſofteſt Feather would eaſily divide its Globules. But in many others who made bloody Urine, *he* ſaw the Blood taken out of the Arm ſo watery and putrid, that the thickeſt Part of it fluctuated in the Veſſel all one as the Serum. Hence farther appears the Uſefulneſs of *Acids*, whoſe chief Benefit is to prevent too great a Diſſolution of the Blood, and to hinder its being exceſſively rarefied upon the Paroxyſms of the Fever.

In a *Phrenſy*, or a *Coma*, proceeding from too great Heat and Ebullition of the Blood, I approve not of *Epiſpaſtics*; whoſe acrid, corroſive Salts will aggravate the Complaints. It is good in ſuch a Caſe, to let into the Room Plenty of freſh Air; to ſtrew the Floor with cooling Herbs dipt in Vinegar, and to give *Refrigerants* and *vegetable Acids*.

In this Stage of Maturation the Spittle is oftentimes ſo baked and tough by the preceding Heat, that Salivation, which

which hitherto preſerved the Patient, is wont to ceaſe; and unleſs the Swelling of the Face and Hands ſupplies its Place the greateſt Danger is now. *Gargariſms* therefore muſt be often ſyringed down the Throat, ſuch as will ſtimulate the Glands, and force them to diſcharge their Contents. For this Purpoſe is recommended a *Decoction of Muſtard Seed and Pepper*, with the Addition of *Oxymel*. An *oily Mixture*, with *Oxymel of Squills*, may be frequently given to promote Spitting. But if neither of theſe anſwer the End, a *gentle Puke* of *Oxymel*, or *Vinegar of Squills*, is oftentimes of ſingular Service, and has made the Patient breathe with more Eaſe and Freedom.

In the *flux Pox* the Swelling of the Face ought to continue till the 11th Day, and that of the Hands ſhould increaſe upon the Detumeſcence of the Face, and continue ſometime longer; than which, as there is no ſurer Sign of Recovery, ſo the contrary indicates imminent Danger. If therefore the Swellings of the Face, Hands and Feet, riſe not at the proper Time, or too ſuddenly ſubſide; if the Ptyaliſm ſuddenly ſtops before its uſual Period; or if a Coma, or a comatous Delirium ſhould happen from a Viſcidity of the Fluids, or too great a Lentor in the Lymph, ſuch Medicines are to be given as will fuſe the viſcous Humors, and accelerate the Motion of the Blood; drinking, at the ſame Time, great Plenty of diluting Liquors.

Bliſters alſo are highly neceſſary at ſuch a Time, and in in no wiſe ſhould be omitted. The Stimulus from a Bliſter determines the Humors to the pained Part; and therefore if Epiſpaſtics were to be applied above the Wriſts, and to the Legs, even before the Detumeſcence of the Face, or a little

before we expect the Tumor of the Hands and Feet ſhould ariſe; (eſpecially when the Symptoms are threatning) as they are Stimuli to be depended on, not only attenuating and deriving the Humors to the Parts, but alſo diſcharging them; ſo they will prove a convenient Outlet to the morbific Matter. Bliſters applied to the Neck, frequently relieve the extreme Pain of the Throat, and Difficulty of Swallowing, which are ſometimes exceeding troubleſome to the Patient. Nay, in ſome, where they have been applied more early, and have continued to run extremely, there has been leſs Swelling and leſs Salivation than ſeemed proportionate to the Vehemence of the Diſtemper, but without any Diſadvantage to the Patients; the Running of the Bliſters ſupplying the Defect of the Spitting. It ſeems then but reaſonable, when we expect the Tranſlation of the noxious Humor to the Hands and Feet, which is what Nature itſelf effects, to endeavour to promote its Flux thither and give it Vent. *Mead* recommends the *bliſtering Epithem* as more convenient than the Plaſter, by Reaſon of its ſoft Conſiſtence; which enables it to reach the Skin between the Puſtules, and ſtick to it. *Sydenham* adviſes *Garlic* to be ſliced, and wrapt in a Cloth, and applied to the Soles of the Feet, when the Face firſt begins to aſſuage, and to be repeated every Day till the Danger is paſt. If it cauſes violent Pain, a *Pultice* of white Bread and Milk is the Cure.

On the 10*th* or 11*th* Day from the Eruption, when the Puſtules are drying, when the Swelling of the Face begins to decline, and the Ptyaliſm to decreaſe, and the Hands do not ſwell as they ought to do, it is very proper to open the

Body

Body by *Clyſters*, or *gentle Cathartics*; by which Means the Fever will be taken off with the greateſt Safety. For Want of early purging, the poiſonous Matter oftentimes fixes on ſome of the *Viſcera*, and brings on ſudden Death; or degenerates into a hectic Fever, or ſome other dangerous Diſtemper. Such is the Neceſſity of ſome Evacuation at this Time, when the Matter of the Diſeaſe is over-abundant; or when Nature is not able to throw off the Load by a ſpontaneous Spitting or Purging.

It may be taken as an *Axiom* in Phyſic, that in a putrid, malignant Fever, ſuch as follows the flux Pox, when perhaps the Patient may not have had a Stool for the laſt ſix or ſeven Days, the *Primæ Viæ* are ſtuft up, and the meſenterial Glands infarcted in ſuch a Manner, and with ſuch Matter as to make it highly reaſonable to empty the Bowels by *Clyſters*, or by the moſt *lenient Purges*. Nothing is more true, than that the Conſtipation of the Body in the Small-Pox increaſes the Heat, Fever, Swelling of the Throat, *&c.* And therefore the beſt Phyſicians have ordered a *Clyſter* every Day after the Small-Pox are turned in the Face; that is, on the 9*th*, 10*th*, or 11*th* Days, with a Deſign to throw off the Fæces from the Bowels, and abate the Violence of the Fever.

But in Regard to purging as ſoon as the Small-Pox are turned in the Face, Dr. *Mead* gives us the following Caution, *viz.* to be very circumſpect whether there be any Remains of the purulent Matter lurking under the withered Skin of the Puſtules: For this is ſometimes ſo manifeſtly the Caſe, that though the Scabs appear dry and hard, yet upon ſome of them breaking here and there, there iſſues forth

very fætid Matter. In this Circumſtance the Body is not to be purged, but rather to be ſupported with proper Diet until the Matter is all come away. That is, Purging is not to be inſiſted on 'till the Matter in the Puſtules is grown too thick to be abſorbed from the Circumference to the Center.

In reſpect to Purging in the *ſecondary* Fever, what the ingenious and learned Dr. *Huxham* has ſaid in his Letter to the *Royal Society* is ſo much to the Purpoſe, that I think it well worth tranſcribing. By this Method of early purging, ſays *he*, in the coherent and confluent Pox I have ſeen ſeveral reſcued from the moſt imminent Danger, whoſe Recovery looked rather like a Reſurrection. This ſurely is the only Way of cleanſing the *Primæ Viæ* ſtuffed with a Load of fætid, acrid Impurities, thrown off by the Glands of the Guts, which cannot be ſuppoſed to ceaſe from their Office during the Courſe of this Diſtemper: And as the Pores of the Skin are at this Time very much conſtipated by the incruſted Puſtules, it is reaſonable to believe the Glands of the Guts rather ſeparate more than uſual; it being an allowed Maxim in Phyſic, that the leſſening one Evacuation is the Encreaſe of another, eſpecially where there is ſuch a peculiar Conſent as between the Skin and the Guts. If ſo, the Excrements being retained for a Week, or more, and by its Weight preſſing on the great Artery hinders the Blood from paſſing freely to the lower Parts, and ſo deluges the Brain. Hence thoſe *Deliriums*, *Comas*, *&c.* ſo frequently threatning at this *Stadium* of the Diſeaſe. Further, can we imagine that the putrid Excrement of the now putrid Blood, joined perhaps with the *Pus* of the internal Pox, and

and having alſo the Addition of ſome Part of the morbific Matter ſeparated by the Glands of the *Fauces* which is accidentally ſwallowed, muſt not be greatly hurtful by remaining in the Inteſtines? where, growing more and more acrimonious, (as is the Nature even of our moſt balſamic Juices when they are *extra Aream Circulationis*, and expoſed to the conſtant Heat of the Body) it contaminates the Chyle, or Liquors that are drank, is reabſorbed into the Maſs of Blood, and becomes a Pabulum to the very Fever which Nature endeavours even this Way, partly at leaſt, to throw off. And indeed what horrible offenſive, fætid, large Stools do we obſerve in this Diſtemper on the Uſe of Clyſters, and more eſpecially after a Purgative? I mean at the State, or in the Declination: So that this very putrid Matter lying long in the Guts, and growing more and more ſo, becomes at laſt ſo virulent as to corrode them, and brings on that very Diarrhæa or Dyſentery, which is ſo vainly feared would ariſe from a gentle Cathartic; ſeeing we are always able to check its Force (if Need be) with an Opiat, *&c.* You may obſerve, that *Cardiac*, *Alexipharmic*, or *Antiputreſcent* Medicines are in no wiſe contradicted by this Method, if judged needful.

We have hitherto ſaid nothing of *Paregorics* in this laſt Stage of the Small-Pox, becauſe many of the Symptoms require other Medicines to be conſidered of before them, unleſs it be when great Pains and Uneaſineſſes require their immediate Uſe. If the Body be coſtive, and eſpecially if it has been ſo for ſome Time, *Opiats* are improper, 'till the

Bowels have been emptied by a lenient Clyſter, or Purge, and then they may ſafely be given immediately after the Operation, in order to quell any Diſturbance which may be raiſed by purging; except it be when the Patient is ſeized with a Shortneſs of Breath, or Danger of choaking from viſcid Slime; and in ſuch a Caſe, *Narcotics* are to be entirely prohibited, becauſe they thicken the Juices, and conſequently will increaſe the Complaint.

But when the Pains, convulſive Spaſms, Anxieties, or any other Symptoms require the Uſe of Paregorics, they ſhould be given early in the Evening, before the Paroxyſm of the Fever comes on; and in order to anticipate it, they ſhould be given ſooner and ſooner every Evening 'till the Fever ceaſes, about the 12*th* Day; and to repeat them *toties quoties* every 12, 8, or 6 Hours, according to the Exigencies of the Symptoms. Anodynes check the impetuous Motion of the Blood, by abating the Stimulus on the Nerves from the variolous Miaſmata, and by thickening the Juices.

After the Declination of the Small-Pox, eſpecially of the *confluent* Kind, it is no unuſual Thing for a *Hectic* Heat to remain, with Want of Appetite, a Pain in the Head, a Cough, and other Sypmtoms of a conſumptive Habit. In others we meet with ſwelled Glands, Boils, Ulcers, foul Bones, *&c.* all which ariſe from the Venom of the preceding Diſtemper not being ſufficiently carried off. But as all theſe *Phænomena* require a different Treatment from the Small-Pox, I have not Time, at preſent, to expatiate on their Cure. And it would be needleſs

needleſs to give any Directions concerning Bleeding and Purging after the Small-Pox; for whoever underſtands what has been ſaid above, cannot be at any Loſs how to proceed when the *Terrors* of the Diſtemper are paſſed over.

F I N I S.

B O O K S

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